What is claimed is:

1. A method for stitching using a stitching apparatus, comprising:

determining information related to at least a first stitch to be stitched using said stitching apparatus;

obtaining tension data; and

controlling stitching of said first stitch using said tension data.

2. A method, as claimed in Claim 1, wherein said determining step includes:

providing first stitch data, a first stitch angle, and a first stitch length; and

calculating a feed length using at least said first stitch angle and said first stitch length.

3. A method, as claimed in Claim 1, wherein:

said determining step includes calculating a number of stitches crossed by said first stitch.

4. A method, as claimed in Claim 1, wherein:

said determining step includes calculating additional thread using a number of stitches crossed by said first stitch and a nominal stitch length.

5. A method, as claimed in Claim 1, wherein:

said determining step includes adding additional thread to a thread length related to said first stitch.

6. A method, as claimed in Claim 1, wherein:

said determining step includes adding overlapping thread to a thread length related to said first stitch.

7. A method, as claimed in Claim 1, wherein:

said determining step includes adding to a thread length related to said first stitch based on a thickness of a fabric to be stitched using said first stitch.

8. A method, as claimed in Claim 1, wherein:

said determining step includes adding an amount to a thread length related to said first stitch based on an applique layer.

9. A method, as claimed in Claim 1, wherein:

said obtaining step includes acquiring data related to a tension profile using at least a first sensor that detects movement.

10. A method, as claimed in Claim 9, wherein:

said movement is caused by changing of thread tension.

11. A method, as claimed in Claim 1, wherein said obtaining step includes:

checking whether a stitching cycle is completed; and

processing data related to a tension profile when said stitching cycle is completed.

12. A method, as claimed in Claim 1, wherein said obtaining step includes:

acquiring data related to a tension profile obtained using at least a first sensor; and

ascertaining said tension data using said data related to said tension profile and reference data.

13. A method, as claimed in Claim 1, wherein:

said controlling step includes stopping said stitching apparatus related to a thread break based on said tension data.

14. A method, as claimed in Claim 1, wherein:

said controlling step includes controlling feed length related to said first stitch using said tension data.

15. A method, as claimed in Claim 14, wherein:

said controlling step includes one of: increasing feed length associated with said first stitch and decreasing feed length associated with said first stitch based on said tension data.

16. A method, as claimed in Claim 1, wherein:

said controlling step includes controlling at least a first active thread feeder.

17. A method, as claimed in Claim 16, wherein:

said controlling step includes controlling a position related to said first active thread feeder.

18. A method, as claimed in Claim 17, wherein:

said controlling step includes causing a motor to be activated for driving said first active thread feeder.

19. A method, as claimed in Claim 17, wherein:

said controlling step includes aligning said first active thread feeder to be responsive to activation of a motor.

20. A method, as claimed in Claim 1, wherein:

said controlling step includes discontinuing thread feed during at least a portion of a stitching cycle related to stitching said first stitch.

21. A method for stitching using a stitching apparatus, comprising:

determining information related to at least a first stitch to be stitched using said stitching apparatus, said determining step including providing a number related to stitches crossed by said first stitch; and

stitching said first stitch using said information.

22. A method, as claimed in Claim 21, wherein:

said stitching step includes utilizing tension data obtained from at least a first sensor that monitors profile data related to thread tension.

23. A method, as claimed in Claim 22, wherein:

said stitching step includes relying on a comparison of said profile data and reference data.

24. A method, as claimed in Claim 21, wherein:

said information relates to thread length associated with said first stitch.

25. A method for stitching using a stitching apparatus, comprising:

providing a plurality of active thread feeders including at least first and second active thread feeders;

causing activation of said first active thread feeder related to stitching a first stitch; and

discontinuing activation of said first active thread feeder during a stitching cycle associated with said first stitch.

26. A method, as claimed in Claim 25, further including:

moving said first active thread feeder relative to a motor that is used in conducting said causing step.

27. A method, as claimed in Claim 26, further including:

locating said first active thread feeder away from said motor and positioning said second active thread feeder for activation thereof using said motor.

28. A method for stitching using a stitching apparatus, comprising:

providing a plurality of active thread feeders including a first active thread feeder and a second active thread feeder and a motor that selectively causes activation of one of said first and second active thread feeders;

positioning said first active thread feeder relative to said motor;

causing activation of said first active thread feeder;

moving said second active thread feeder relative to said motor; and

causing activation of said second active thread feeder using said motor.

29. A method, as claimed in Claim 28, wherein:

said causing activation of said first active thread feeder includes stitching at least a first stitch during a first stitching cycle and discontinuing said causing step at least during some time during said first stitching cycle.

30. A method for detecting a thread break during operation of a stitching apparatus, comprising:

monitoring thread including upper thread and lower thread using at least a first sensor; and

using said first sensor when ascertaining a thread break of said upper thread and using said first sensor when ascertaining a thread break of said lower thread.

31. A method, as claimed in Claim 30, wherein:

said ascertaining step includes one of the following: determining that said thread break is due to said upper thread when a first signal amplitude is present and determining that said thread break is due to said lower thread when a second signal amplitude is present.

32. A method, as claimed in Claim 30, wherein:

said monitoring step includes detecting movement using said first sensor.

33. A method, as claimed in Claim 32, wherein:

said detecting step includes detecting movement of a contact element that moves depending on thread tension.

34. A method, as claimed in Claim 30, wherein:

said monitoring step includes detecting movement using said first sensor that is located more adjacent said upper thread than said lower thread.

35. A stitching apparatus, comprising:

at least a first thread;

at least a first thread sensor that outputs information related to thread tension; and

a control that controls at least said first thread using said information and includes at least a first controller.

36. A stitching apparatus, as claimed in Claim 35, wherein:

said first thread is operably associated with a first active thread feeder activated by a motor.

37. A stitching apparatus, as claimed in Claim 36, wherein:

said first active thread feeder includes at least one gear operatively associated with said motor.

38. A stitching apparatus, as claimed in Claim 36, wherein:

said motor is selectively operatively associated with a number of active thread feeders including said first active thread feeder.

39. A stitching apparatus, as claimed in Claim 36, wherein:

at least portions of said first active thread feeder are movable relative to said motor.

40. A stitching apparatus, as claimed in Claim 35, wherein:

said first thread is operatively associated with a first active thread feeder and said first controller controls activation of said first active thread feeder using a motor.

41. A stitching apparatus, as claimed in Claim 35, wherein:

said first thread is operatively associated with a first active thread feeder which includes at least a first gear and in which said first gear receives an aligner related to aligning said first gear in operative association with a motor.

42. A stitching apparatus, as claimed in Claim 35, further including:

a second thread sensor that outputs data related to thread tension, said first thread including upper thread and lower thread and in which said first and second thread sensors are disposed more adjacent to said upper thread than to said lower thread.

43. A stitching apparatus, as claimed in Claim 35, wherein:

said control includes a thread sensor controller and said first thread sensor is operatively associated with a thread break detection circuit which is operatively associated with at least said first controller.

44. A stitching apparatus, as claimed in Claim 35, wherein:

said first thread includes an upper thread and a lower thread and in which said data related to thread tension is used in determining whether an upper thread break or a lower thread break has occurred when a thread break occurs.

45. A stitching apparatus, as claimed in Claim 35, wherein:

each of said first thread and said first thread sensor is operatively associated with a thread contact element that moves based on said thread tension.

46. A stitching apparatus, as claimed in Claim 35, wherein:

said control determines a feed length for at least a first stitch using at least a first stitch angle and a first stitch length.

47. A stitching apparatus, as claimed in Claim 35, wherein:

said control determines a number of stitches crossed by at least a first stitch.

48. A stitching apparatus, as claimed in Claim 47, wherein:

said control ascertains additional thread using said number of stitches crossed and a nominal length related to said first stitch.

49. A stitching apparatus, as claimed in Claim 48, wherein:

said first controller includes a main controller and said control includes a host controller in communication with said main controller and in which said host controller determines said additional thread and said number of stitches crossed.

50. A stitching apparatus, as claimed in Claim 35, wherein:

said first thread has a first thread length associated therewith and in which said control adds to said thread length based on at least one of the following: overlapping thread, thickness of fabric, and use of applique layer.

51. A stitching apparatus, as claimed in Claim 35, wherein:

said control obtains and stores a tension profile using said information related to thread tension.

52. A stitching apparatus, as claimed in Claim 51, wherein:

said control determines tension data using said tension profile and reference information.

53. A stitching apparatus, as claimed in Claim 52, wherein:

said control includes a thread sensor controller used to store said tension profile and to determine said tension data.

54. A stitching apparatus, comprising:

at least a first thread; and

a control that includes at least a first controller and in which said control determines a number related to stitches crossed by a first stitch and uses said number in stitching.

55. A stitching apparatus, as claimed in Claim 54, wherein:

said first thread is operatively associated with at least a first thread sensor that outputs information related to thread tension.

56. A stitching apparatus, as claimed in Claim 54, wherein:

said first thread is operatively associated with a first active thread feeder that is caused to move said first thread using said control.

57. A stitching apparatus, as claimed in Claim 54, wherein:

said first thread engages in a contact element that is operatively associated with at least a first thread sensor and in which said contact element moves depending upon tension associated with said first thread.

58. A thread feed assembly in a stitching apparatus, comprising:

a plurality of active thread feeders mounted to a needle case including first and second active thread feeders, at least said first active thread feeder being used in delivering a first thread from a first spool to a needle; and

a motor that drives said first active thread feeder when said needle case is in a first location and that drives said second active thread feeder when said needle case is in a second location.

59. An assembly, as claimed in Claim 58, wherein:

said first active thread feeder moves relative to said motor.

60. An assembly, as claimed in Claim 58, wherein:

said first active thread feeder includes at least a first gear and at least a first roller.

61. An assembly, as claimed in Claim 58, wherein:

said first active thread feeder includes at least a first gear and an aligner contacts said first gear in aligning said first gear in operative association with said motor.

62. An assembly, as claimed in Claim 61, wherein:

said motor is operably associated with a motor gear that causes said first gear to rotate when said motor is activated.

63. A stitching apparatus, comprising:

a needle case operably associated with at least a first needle;

a contact element joined to said needle case;

at least a first thread sensor mounted to said needle case that outputs a signal having information related to thread tension;

an upper thread routed from a spool to said first needle;

a lower thread routed from a bobbin to a rotary hook that engages said upper thread during stitching and creates tension in said upper thread; and

circuitry operatively associated with said first thread sensor wherein, when an upper thread break occurs, said first thread sensor and said circuitry are used to determine the break

in said upper thread and, when a break occurs in said lower thread, said circuitry and said first thread sensor are used to determine the break in said lower thread.

64. A stitching apparatus, as claimed in Claim 63, wherein:

said contact element is movable relative to said needle case based on tension in at least said first thread.

65. A stitching apparatus, as claimed in Claim 63, wherein:

said contact element is operatively associated with a second thread sensor, said contact element having first and second ends and said first thread sensor being located closer to said first end than to said second end and said second thread sensor being located closer to said second end than to said first end.

66. A stitching apparatus, as claimed in Claim 63, wherein:

said circuitry includes at least one of a thread sensor controller and a main controller and in which at least one of said main controller and said thread sensor controller determines tension data using said information from said first sensor.

67. A stitching apparatus, as claimed in Claim 66, wherein:

said main controller is used in increasing feed length depending on said tension data.

68. A stitching apparatus, as claimed in Claim 67, wherein:

said first thread is operatively associated with a first active thread feeder that is used to increase said thread feed length under control of said main controller.